UPGRADE AND UPDATE GUIDE | PUBLIC

SAP NetWeaver 7.3 and 7.3 Including Enhancement Package 1

Document Version: 1.4 – 2018-07-18

SAP NetWeaver Upgrade and Update Guide
Preparation and Follow-Up Activities
Technology: ABAP+Java

THE BEST RUN **SAP**

Content

1 Introduction

1.1 Document History

> **i** Note
>
> Before you start the implementation, make sure you have the latest version of this document. You can find
> the latest version at the following link: http://help.sap.com/viewer/nwguidefinder

Version	Date	Description
1.0	2012-05-15	Initial version
1.1	2012-08-06	Updated Version
1.2	2013-02-05	Source Release SAP NetWeaver 7.0 adapted
1.3	2014-08-16	Updated version; SAP Branding and Terminology updated; Upgrade and Update Guide now valid for SAP NW 7.3 and 7.3 EHP1
1.4	2018-07-19	Updated chapter Checking the Free Space Requirements [page 7]

1.2 About this Document

Purpose

This document describes the preparation and follow-up activities that you need to perform when you update
your SAP system to SAP enhancement package 1 for SAP NetWeaver 7.3 (ABAP+Java) or when you apply
Support Package Stacks to SAP enhancement package 1 for SAP NetWeaver 7.3 (ABAP+Java).

For clarity and readability, the generic term "update" is used in this document in the context of release
upgrade, enhancement package installation and Support Package Stack application.

This document supplements the document *Update Guide – Update of SAP Systems Using Software Update Manager <version>* which includes general planning, preparation and follow-up activities, information about using the Software Update Manager, and troubleshooting information.

Integration

In addition to this guide, you need the following documents:

- *Upgrade Master Guide – SAP Enhancement Package 1 for SAP NetWeaver 7.3*
  The *Upgrade Master Guide* guides you through the complete update process and refers you to the required documentation for each step.
  To find the latest version of this document, see SAP Service Marketplace at http://service.sap.com/upgradeNW73 .
- *Update Guide – Update of SAP Systems Using Software Update Manager <version>*
  To find the latest version of this document, see SAP Service Marketplace at http://service.sap.com/sltoolset *Software Logistics Toolset 1.0 SUM* .

1.3 Accessing Documentation

Use

Before, during and after the update, you require the SAP online documentation.

There are different ways to access the online documentation:

- SAP NetWeaver Library on SAP Help Portal
  You can access the documentation for all maintained product releases on SAP Help Portal.
- Local installation of the SAP NetWeaver Library
  Before the update, make sure that you can read the documentation DVD offline. After the update, you need to install the documentation for the target release.

Procedure

SAP NetWeaver Library on SAP Help Portal

Follow the applicable path to the SAP NetWeaver Library on SAP Help Portal:

Release	Path
SAP NetWeaver 7.3 including enhancement package 1	http://help.sap.com/nw731 *Application Help*

Release	Path
SAP NetWeaver 7.3	http://help.sap.com/nw73 *Application Help*
SAP NetWeaver Process Integration 7.1	http://help.sap.com/nwpi71 *Application Help*
SAP NetWeaver Process Integration 7.1 including enhancement package 1	http://help.sap.com/nwpi711 *Application Help*
SAP NetWeaver 7.0	http://help.sap.com/nw70 *Application Help*
SAP NetWeaver 7.0 including enhancement package 1	http://help.sap.com/nw701 *Application Help*
SAP NetWeaver 7.0 including enhancement package 2	http://help.sap.com/nw702 *Application Help*

Local Installation of the SAP NetWeaver Library

Before and during the update, you must read the online documentation for the target release on the DVD.

> → Recommendation
>
> If there is a Support Package available for the documentation, use the documentation version on SAP Help Portal.

1.4   SAP Notes

To prepare and perform the update of your SAP system, you require some additional information that is not included in this document. This information is in a range of SAP Notes in SAP Support Portal (http://service.sap.com/notes), some of which you must read before you start with the preparations. When you actually perform the update, you may need information from some additional SAP Notes. These SAP Notes are named at the appropriate places in this document.

SAP Notes for Preparing the Update

You must request the following SAP Notes from SAP Support Portal before you start the update process:

- Central Software Update Manager Note
-
- SAP Note for your database

Since these SAP Notes are updated regularly, make sure that you always use the latest version.

Other SAP Notes

As well as the SAP Notes you need for the preparation, this document also refers you to other SAP Notes that contain **additional** information. The following list contains these SAP Notes:

SAP Note Number	Description
28022	Customer system: Where-used list of SAP objects
669669	Updating the SAP Component Repository in the SLD
737625	Parameter recommendations for the ICM
888362	Helpful technical hints for installing and maintaining MIC
907897	Errors when updating SAP CIM model to Version 1.5 or higher
1139642	Hardware Requirements in Unicode Systems
1393764	Updating the SAP Component Repository SLD (from 1.x to 2.0)
1405648	BPE-HT: Job SWEQSRV not scheduled after startup of BPE
1450419	Configuration Wizard for automated follow-up activities
1562025	Configuration Wizard: PI-AEX EHP Upgrade
1693104	PI Upgrade: Cache Connectivity Test failed

2   Preparations for the Update

This part of the document contains information about the preparations that you need to make before you update your system.

You can prepare for the update while the system is in production operation. Careful preparation of the update is the best guarantee that it runs without errors.

The Software Update Manager supports you here by making a range of checks automatically in the preparation roadmap steps (*Initialization*, *Extraction*, *Configuration*, and *Checks*). To make sure that all requirements are met, run the preparation roadmap steps of Software Update Manager as soon as possible. You can reset and repeat the preparation roadmap steps as often as you need by choosing *Back* before you start the actual procedure in roadmap step *Preprocessing*. The successful execution of the preparation roadmap steps is a prerequisite for starting the roadmap step *Preprocessing*.

Actions

You perform the following actions before you start the Software Update Manager:

- Checking the Free Space Requirements [page 7]
- Checking the Source Release of the SAP System [page 8]
- Taking Note of Activated ICM Services [page 9]
- PI: Task Related to Background Job SWEQSRV [page 9]
- PI: Handling Inactive IDOCs and RFCs in the Integration Reposito [page 10]
- PI: Archiving Messages in the PI Adapter Framework [page 10]
- PI: Resolving Inconsistencies in the Database [page 11]
- PI: Upgrading Conversion Agent by Informatica [page 11]
- Updating SLD Content of the Source System [page 12]

2.1   Checking the Free Space Requirements

Make sure that at least the following free space is available in the system that you want to update:

SUM Directory	Approximately 40 GB
Download Directory (temporary space requirement)	Approximately 40 GB
DIR_TRANS	Approximately 20 GB

Shadow System	Approximately the space required for your source release instance, that is, the size of the following directory:
	• UNIX: `/usr/sap/<sapsid>`
	• Windows: `<Drive>:\usr\sap\<sapsid>`
	• IBM i: `/usr/sap/<SID>`

2.2   Checking the Source Release of the SAP System

Use

> **i** Note
>
> • This step is not required if you apply a Support Package Stack.
> • See also the PDF document, which is attached to the central SUM note, for a graphical representation of the supported update and upgrade paths.
> • The Software Update Manager will check whether your source release is supported for this update.

Before the update, your SAP system must have one of the source releases that have been released for this update and apply to all databases:

• SAP NetWeaver 7.3
• SAP NetWeaver Process Integration 7.1 including enhancement package 1
• SAP NetWeaver Process Integration 7.1
• SAP NetWeaver 7.0 including enhancement package 2
• SAP NetWeaver 7.0 including enhancement package 1
• SAP NetWeaver 7.0 SPS 14 (or higher)

Different SAP NetWeaver product instances have different minimum Support Package Stack levels. If you update an SAP NetWeaver system containing various product instances, make sure that your source system is on any acceptable Support Package Stack level for all product instances implemented in the system.

> **i** Note
>
> Make sure that you include at least Support Package Stack 02 in the upgrade.

> ⚠ Caution
>
> If you have to apply Support Packages to your source release shortly before the update, check whether the equivalent Support Package Stack for the target release is already available. Otherwise, this may delay your update schedule.

Procedure

Procedure for ABAP Systems

To determine the source release of the SAP system, log on to the system and choose ▶ *System* ▶ *Status* ◀ .

The release appears in the *Component version* field.

Procedure for Java Systems

To determine the source release and Support Package Stack level of your SAP system, proceed as follows:

1. Go to the AS Java start page: `http://<host name>:<port>/index.html`
2. Choose *System Information*.
3. Log on to AS Java as user `J2EE_Admin`.

The current release and Support Package level are displayed under *Version* in the *Software Components* table.

2.3   Taking Note of Activated ICM Services

Use

The Software Update Manager disables services of the Internet Communication Framework (ICF) for security reasons.

Procedure

Call transaction SICF and make a note of the activated services.

2.4   PI: Task Related to Background Job SWEQSRV

Use

The background job for managing the correct processing of the event queue (`SWEQSRV`) is an optional periodical task for the Business Process Engine (BPE). After the startup of the BPE, the job `SWEQSRV` is no longer scheduled.

Procedure

If the job was scheduled in the operation mode periodic in the source system, SAP Note 1405648 should be applied before starting the update.

2.5   PI: Handling Inactive IDOCs and RFCs in the Integration Repository During the Upgrade

Use

Only active RFCs and IDOCs inside your Integration Repository are upgraded. Open change lists are not taken into account during the upgrade. If you have inactive IDOCs or RFCs in your system, follow the instructions below.

To archive the messages, you have to minimize the retention time. As of SAP NetWeaver XI 3.0 Support Package Stack 11, you can manually set the retention time for messages to be expired. You can then remove these messages from the database immediately or archive them before deleting them.

Procedure

To set the retention time for archiving, perform the following steps:

1. In a Web browser, enter the following URL:
   `http://<host>:<port>/MessagingSystem/archiving/reorgdb.jsp.`
2. Enter a number of days.
   For the messages that were sent or received earlier than the number of days you have specified, the retention time is reset so that you can delete them immediately from the database.

> **i Note**
>
> If you want to archive a large number of messages before deleting them, we recommend that you select groups of messages in several steps to adjust the retention time and then archive them. Archiving can be time-consuming and may impede the current message throughput.

2.6   PI: Archiving Messages in the PI Adapter Framework

Use

If you have scheduled an archiving job for the Adapter Framework or PCK, make sure that all messages are archived before you start the upgrade. If successfully finished messages are still in the database of the source

release system, only their status information is migrated to the target release system. Therefore, the messages themselves are not accessible for the archiving job after the upgrade.

Procedure

To archive the messages, proceed as described in SAP Note 807615🐷.

2.7 PI: Resolving Inconsistencies in the Database

Use

To prevent errors during the upgrade caused by inconsistent objects in the database, you must perform some checks before the upgrade and resolve these inconsistencies. If you do not perform the checks, the upgrade might stop during the downtime with a migration controller error.

Procedure

For more information, see SAP Note 1154961🐷.

2.8 PI: Conversion Agent by Informatica

Use

If the Conversion Agent by Informatica exists in your source release system, proceed as described below.

Procedure

Depending on your source release system, proceed in one of the following ways:

- If your source release is SAP NetWeaver 7.0, SAP NetWeaver 7.0 including enhancement package 1 or SAP NetWeaver 7.0 including enhancement package 2, the Software Update Manager detects the Conversion Agent by Informatica and prompts you for a successor version.
  Since no successor exists, set it to *remove*.

- If your source release is SAP NetWeaver Process Integration 7.1, SAP NetWeaver Process Integration 7.1 including enhancement package 1 or SAP NetWeaver 7.3, remove the Conversion Agent by Informatica before you start the update process.

2.9 Updating SLD Content of the Source System

Use

Before you start the update process, you need to update the System Landscape Directory (SLD) content of your source system.

> i Note
>
> Make sure that you also update the central SLD if it is located on a remote host.

To do this, you download the latest SLD content from SAP Service Marketplace and import it into the SLD.

The SLD content consists of the following parts:

- Component Repository Content (CR Content)
- Common Information Model (CIM) data model

> i Note
>
> The CR Content and the CIM data model are independent from the SLD release. Therefore, you must always import the latest SLD content into each SLD.

Prerequisites

To import the updated content into the System Landscape Directory, you require administration authorization.

Procedure

Proceed as described in SAP Note 669669 .

3   Follow-Up Activities After the Update

This part of the document contains information about the follow-up activities that you need to perform after you have updated your SAP system.

When you perform follow-up activities, note the following information:

- Before you start the follow-up activities, you must have run the update up to and including the `MODPROFP_UPG` phase.
  The Software Update Manager stops in the `MODPROFP_UPG` phase and prompts you to start several follow-up activities. It then executes the last phases and completes the update. At the same time, you can already perform the specified follow-up activities.

The follow-up activities are divided into three blocks:

- Actions needed before resuming production operation
  These actions ensure that all the processes that are relevant to system operation are available again. You can start these actions while the Software Update Manager is finishing the update.
- Actions during limited production operation
  During this time, your SAP system is already consistent and all the processes that are relevant to system operation are available. However, this system state does not yet contain measures for optimizing performance, or actions for resuming standard operation (resuming background processing, or adjusting authorizations, for example). Check the actions that are listed in this block and if necessary, perform them before you restart production operation.
- Actions during production operation
  You can also perform these actions when the system is back to production operation.

Actions

You must perform the following actions **before you resume production operation** of your system:

- Performing Follow-Up Activities for the System Landscape Directory [page 17]
-
-
-
-
- PI: Creating a Destination from AS Java to AS ABAP for Integration [page 19]
- PI: Rescheduling PI-Specific Background Jobs [page 21]
-

You can perform the following actions **during limited production operation** of your system:

-
-

3.1 Activating the ICM Service

Use

> **i Note**
>
> This step only applies if you have not used the PI Upgrade, PI Upgrade EHP, or PI/ESR Support Package Update CTC Wizard to perform the basic configuration steps after the update.

The Software Update Manager disables services of the Internet Communication Framework (ICF) during the update for security reasons. You have to activate the services that you require again after the update.

Procedure

Call transaction SICF and activate the required services by executing function module SXMB_ACTIVATE_ICF_SERVICES.

More Information

For information about parameter recommendations for the ICM, see SAP Note 737625 .

3.2 Updating the Where-Used List in the ABAP Workbench

Use

> **i Note**
>
> This action is optional.

The where-used list for ABAP Dictionary objects and object types has its own index. If you need a complete display of the where-used list in your SAP system, you must re-create the index after the update.

Prerequisites

You have generated the loads in your system.

Procedure

To create the index, you need to run report SAPRSEUB in the background.

> **i Note**
>
> Since the runtime of the report may be long, we recommend that you run it in the development system only.

For more information about this report, see SAP Note 28022.

Back to

3.3   Activating Business Functions

Use

Functions provided by SAP enhancement packages for SAP NetWeaver are active in your system right after the installation. The only exception is *Information Lifecycle Management (ILM)*, which has to be activated, since it requires a separate license.

> **⚠ Caution**
>
> Once you have activated a business functions, you cannot deactivate it.

Procedure

1. Log on to the development system as a user with authorization SAP_ALL.
2. Disable all batch jobs.
3. Close the system for all other users.
4. Call transaction SFW5.
5. Optionally, choose an Industry Solution in the business function set drop down box.

   > **⚠ Caution**
   >
   > You can only activate one business function set.

6. Select the required business functions.
7. To activate a new business function, set the planned status to *On* and choose *Check Changes*.
8. If no error is reported, you can activate the new functions by choosing *Activate Changes*
   The batch job for DDIC and BC set activation starts immediately. The job runs between 30 and 120 minutes approximately.
9. When the activation is completed, reschedule all batch jobs in the development system and unlock the users.

3.4 PI: Generating Profiles for Roles

Use

> **i Note**
>
> This step only applies if you have not used the PI Upgrade or PI Upgrade EHP CTC Wizard to perform the basic configuration steps after the update.

Procedure

To generate all roles, proceed as follows:

1. Call transaction PFCG.
2. Choose ‖▶ *Utilities* ❭ *Mass Generation* ❭.
   1. Select *All Roles*.
   2. In the *Role* field, enter **SAP_XI***.
   3. Select *Generate Automatically*.
   4. Choose `F8` and then *Generate online*.
      If a list of profiles that have not yet been generated is displayed, repeat the procedure by choosing `F8`.
   5. Repeat the steps for the roles SAP_SLD*.
   6. Repeat the steps for the roles SAP_BC_AI_LANDSCAPE_DB_*.
   7. Repeat the steps for the roles SAP_BC_JSF_COMMUNICATION*.
   8. Repeat the steps for the roles SAP_BC_BGRFC_SUPERVISOR in IS client.
   9. Repeat the steps for the roles SAP_BC_BGRFC_SUPERVISOR in client 000.
   10. Repeat the steps for the roles SAP_BC_WEBSERVICE_SERVICE_USER in IS client.
   11. Repeat the steps for the roles SAP_BC_WEBSERVICE_SERVICE_USER in client 000.
3. Choose ‖▶ *Utilities* ❭ *Mass Comparison* ❭.
   1. In the *Role* field, enter **SAP_XI***.
   2. Select *Output Error Messages*.
   3. Choose `F8`.
      No error message should be displayed.
      You can ignore the message that a certain role does not have a profile.
   4. Repeat the steps for the roles SAP_SLD*.
   5. Repeat the steps for the roles SAP_BC_AI_LANDSCAPE_DB_*.
   6. Repeat the steps for the roles SAP_BC_JSF_COMMUNICATION*.
   7. Repeat the steps for the roles SAP_BC_BGRFC_SUPERVISOR in IS client.
   8. Repeat the steps for the roles SAP_BC_BGRFC_SUPERVISOR in client 000.
   9. Repeat the steps for the roles SAP_BC_WEBSERVICE_SERVICE_USER in IS client.
   10. Repeat the steps for the roles SAP_BC_WEBSERVICE_SERVICE_USER in client 000.
4. Restart the AS Java from transaction SMICM by choosing ‖▶ *Administration* ❭ *AS Java* ❭ *Instance (Local)* ❭ *Send Hard Shutdown – with Restart* ❭.

3.5 Performing Follow-Up Activities for the System Landscape Directory

Use

> **i Note**
>
> This step only applies if you have not used the PI Upgrade or PI Upgrade EHP CTC Wizard to perform the basic configuration steps after the update.

The follow-up activities that you have to perform for the System Landscape Directory (SLD) depend on the situation in your source release system, that is, whether the SLD was configured or not.

Procedure

- If the SLD was configured in your source release system, you must perform the following actions to enable the use of the SLD in your updated system:
  - Configure the user management
    Define security roles and assign users to these roles.
    Proceed as described in the SAP Library [page 4] for your target release at:
    ▶ *SAP Library <Language>* ❯ *SAP NetWeaver Security Guide* ❯ *Security Aspects for Lifecycle Management* ❯ *System Landscape Directory Security Guide* ❯ *Configuring SLD Security Roles* ❯
  - Update the SLD content and data model

    > **i Note**
    >
    > This action is not required if you have already updated the SLD content and data model as described in Updating SLD Content of the Source System [page 12].

    We recommend that you download the latest SLD content from SAP Service Marketplace and import it into the SLD. For more information, see SAP Note 669669 .
- If the SLD was not configured in your source release system but you want to use it in your target release system, proceed as described in the SAP Library [page 4] for your target release at:
  ▶ *Function-Oriented View <Language>* ❯ *Solution Life Cycle Management* ❯ *Configuring, Working with and Administering System Landscape Directory* ❯ *Administrating the SLD* ❯

In either situation, you also need to configure the following SLD components:

- SLD Data Supplier
  Proceed as described in the SAP Library [page 4] for your target release at:
  ▶ *Function-Oriented View <Language>* ❯ *Application Server* ❯ *Application Server Infrastructure* ❯ *Configuring, Working with and Administering System Landscape Directory* ❯ *Connecting Systems to the SLD* ❯
  - For AS ABAP systems: ▶ *Connecting AS ABAP Systems to the SLD* ❯ *Setting Up the SLD Data Supplier for AS ABAP Based Systems* ❯

o   For AS Java systems: ▌▶ *Connecting AS Java Systems to the SLD* ❯ *Setting Up the SLD Data Supplier for*
        AS Java Based Systems ❭
- SLD Client
  Proceed as described in the SAP Library [page 4] for your target release at:
  ▌▶ *Function-Oriented View <Language>* ❯ *Application Server* ❯ *Application Server Infrastructure* ❯
  Configuring, Working with and Administering System Landscape Directory ❯ *Connecting Systems to the*
  SLD ❯ *Connecting AS Java Systems to the SLD* ❯ *Configuring the SLD Client* ❭

More Information

After the update, if the access to the SLD is no longer possible for some users, see SAP Note 1617234 .

3.6   PI: Importing ESR Content for Software Component SAP_BASIS

Use

> **i Note**
>
> This step only applies if you have not used the PI Upgrade, PI Upgrade EHP, or PI/ESR Support Package
> Update CTC Wizard to perform the basic configuration steps after the update.

Download the latest ESR content for software component SAP_BASIS 7.31 from SAP Service Marketplace and
import it into your system.

Prerequisites

You have performed the necessary activities for the SLD [page 17].

Procedure

To import the ESR content for the software component SAP_BASIS 7.31, proceed as described in the SAP
Library [page 4] for your target release at:

▌▶ *Function-Oriented View <Language>* ❯ *Process Integration* ❯ *Configuring Process Integration After*
Installation ❯ *Configuring Process Integration (PI) Dual-Stack* ❯ *Basic Configuration (CTC Wizard-Assisted and*
Manual) ❯ *Manual Configuration for Usage Type PI* ❯ *Importing ESR Content* ❭

3.7 PI: Creating a Destination from AS Java to AS ABAP for Integration Process Monitoring

Use

You can monitor integration processes (cross-component Business Process Management) using SAP NetWeaver Administrator. To enable this function, the Java-based user interface of SAP NetWeaver Administrator has to retrieve data being persisted in the ABAP stack of the Integration Server. Therefore, a destination from the Java stack to the ABAP stack is needed. You create the necessary destination in SAP NetWeaver Administrator.

Procedure

1. To start SAP NetWeaver Administrator, enter the following address in your Internet browser: `http://<host>:<port>/nwa`.
2. Log on with your AS Java administrator user.
3. Choose ⫼ *Infrastructure* ❯ *Destinations* ❭ .
4. Specify the RFC destination. To do this, choose the *Logon Data* tab and enter the user and password. The *Special Data* tab contains default values that are already set

3.8 PI: Performing Follow-Up Activities for SAP Solution Manager

1. Connect the newly updated SAP system to SAP Solution Manager.
   For more information, see the *Configuration Guide: SAP Solution Manager*, sections "Solution Monitoring: Setting Up the SAP Solution Manager" and "Solution Monitoring: Setting Up the Service Data Control Center" on SAP Service Marketplace at http://service.sap.com/instguides ❯ *SAP Components* ❯ *SAP Solution Manager* ❯ *Release <x>* ❭ .
2. Activate the EarlyWatch alert.
   For more information, see the SAP Solution Manager online documentation at ⫼ *SAP Solution Manager* ❯ *Solution Monitoring* ❯ *Using SAP EarlyWatch Alert* ❭ .

3.9 Performing Follow-Up Activities for the Enterprise Services Repository

You have to update the SAP BASIS content by manually importing the XI content as described in the SAP Library at:

http://help.sap.com/nwce72 ▷ *SAP NetWeaver Composition Environment 7.2* ❯ *SAP NetWeaver Composition Environment Library* ❯ *Administrator's Guide* ❯ *Configuring Additional Components* ❯ *Configuring Enterprise Services Repository* ❯ *Wizard-Based Basic Configuration* ❯ *Importing ESR Content* ❯

3.10 Performing Follow-Up Activities for Application Link Enabling (ALE)

Use

> **i** Note
>
> This section only applies to the ABAP part of the update.

Release upgrade only:

If you are using Application Link Enabling Shared Master Data Management, you need to migrate the change pointers to the new table BDCP2 after the upgrade. Until you have migrated all change pointers, both the former and the new table are used. For performance reasons, migrate the change pointers as soon as possible after the upgrade.

Enhancement package installation and SPS update:

If you are using Application Link Enabling Shared Master Data Management, you need to migrate the change pointers to the new table BDCP2 after the update. Until you have migrated all change pointers, both the former and the new table are used. For performance reasons, migrate the change pointers as soon as possible after the update.

Procedure

1. To check which message types are affected and how many change pointers need to be migrated, run report RBDCPMIG_ALL_WITHOUT_MIG_FLAG in test mode.
2. Decide if you want to run the report for all message types at once or separately.
   Running the report for each message type separately splits up the total runtime into smaller sections.
3. Run report RBDCPMIG_ALL_WITHOUT_MIG_FLAG in production mode.

> **→ Recommendation**
>
> If you directly access tables BDCP, BDCPS and BDCPV from your own programs, you need to adjust the source code. We recommend that you do not directly access the SAP tables, but use the interfaces provided for this purpose instead.
>
> When you use change pointers, use the following function modules:
>
> - For generation
>   - CHANGE_POINTERS_CREATE
>   - CHANGE_POINTERS_CREATE_DIRECT
>   - CHANGE_POINTERS_CREATE_LONG
> - For reading
>   - CHANGE_POINTERS_READ
> - For changing the status
>   - CHANGE_POINTERS_STATUS_WRITE
> - For deletion
>   - CHANGE_POINTERS_DELETE

3.11 PI: Rescheduling PI-Specific Background Jobs

Use

In addition to rescheduling background jobs that were locked when you isolated the primary application server instance, you must reschedule some SAP NetWeaver PI-specific background jobs.

Procedure

You must reschedule the following background jobs manually:

- *Background Job for Missed Deadlines*
- *Background Job for Work Items with Errors*
- *Background Job for Event Queue*
- *Background Job for Clearing Report*
- *Background Job for Shared Memory Update of the Container Factory*
- *Background Job for Packaging*
- *Background Job for Reorganization*

To reschedule the jobs, proceed as follows:

1. Call transaction SWF_XI_CUSTOMIZING.
2. Select the background job.
3. Choose the button for performing the automatic workflow Customizing.

In addition, you may have to reschedule the background job for managing the correct processing of the event queue (SWEQSRV). This background job is an optional periodical task for the Business Process Engine (BPE). After the startup of the BPE, the job SWEQSRV is no longer scheduled.

If the job was scheduled in the operation mode *Depending on load (dynamic)*, it must be started manually after the upgrade.

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Example Code

Any software coding and/or code snippets are examples. They are not for productive use. The example code is only intended to better explain and visualize the syntax and phrasing rules. SAP does not warrant the correctness and completeness of the example code. SAP shall not be liable for errors or damages caused by the use of example code unless damages have been caused by SAP's gross negligence or willful misconduct.

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We try not to use gender-specific word forms and formulations. As appropriate for context and readability, SAP may use masculine word forms to refer to all genders.

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